

# **METHOD AND SYSTEM TO REGULATE COOLING OF A MEDICAL IMAGING DEVICE**

## **Abstract of Disclosure**

The present invention provides a system and method of removing heat from an MR imaging device while maintaining internal and external temperatures below maximum operating limits, thereby enabling higher power applications for faster imaging with improved image quality as well as, allowing longer scan times for interventional procedures. The system includes a vacuum chamber housing the gradient coils and a vacuum pump connected thereto to regulate the pressure and humidity within the chamber. A heat exchanger, coolant pump, and controller are provided to regulate the temperature of coolant designed to dissipate heat from the gradient coils in response to at least one temperature sensor.

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